

Docket No.: PHRM0002-104
PATENT

Appl. Number: 10/736,048
Filed: 12/15/2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

In the Claims:

Claims 1-62 (canceled)

Claim 63 (previously presented) A method for identifying a modulator of binding between a DmGPCR and an allostatin, comprising the steps of:

- (a) contacting an allostatin and a composition comprising a DmGPCR in the presence and in the absence of a putative modulator compound;
- (b) detecting binding between the allostatin and the DmGPCR; and
- (c) determining whether binding in the presence of said putative modulator is increased or decreased compared to binding in the absence of said putative modulator compound, whereby putative modulator compounds that increase or decrease binding are identified as binding modulators;

wherein the DmGPCR is DmGPCR4 having a sequence with at least 90% sequence homology to SEQ ID NO:8.

Claim 64 (currently amended) The method of claim 63 wherein the allostatin is a peptide having a sequence selected from the group consisting of SEQ ID NO:34, SEQ ID NO:35, SEQ ID NO:36, SEQ ID NO:37 and SEQ ID NO:161, ~~SEQ ID NO:165~~.

**Docket No.: PHRM0002-104
PATENT**

**Appl. Number: 10/736,048
Filed: 12/15/2003**

Claim 65 (previously presented) The method of claim 63 wherein the allostatin is a peptide having a sequence of SEQ ID NO:34.

Claim 66 (previously presented) The method of claim 63 wherein the allostatin is a peptide having a sequence of SEQ ID NO:35.

Claim 67 (previously presented) The method of claim 63 wherein the allostatin is a peptide having a sequence of SEQ ID NO:36.

Claim 68 (previously presented) The method of claim 63 wherein the allostatin is a peptide having a sequence of SEQ ID NO:37.

Claim 69 (currently amended) The method of claim 63 wherein the allostatin is a peptide having a sequence of SEQ ID NO:161. ~~SEQ ID NO:165.~~

Claim 70 (previously presented) The method of claim 63 wherein the DmGPCR4 has a sequence with at least 95% sequence homology to SEQ ID NO:8.

Claim 71 (previously presented) The method of claim 63 wherein the DmGPCR4 has a sequence with at least 99% sequence homology to SEQ ID NO:8.

Claim 72 (previously presented) The method of claim 63 wherein the DmGPCR4 has the sequence of SEQ ID NO:8.

Claim 73 (previously presented) The method of claim 63 wherein modulation of binding is determined by a gel-shift assay.

**Docket No.: PHRM0002-104
PATENT**

**Appl. Number: 10/736,048
Filed: 12/15/2003**

Claim 74 (previously presented) The method of claim 63 wherein modulation of binding is determined by a protein binding assay.

Claim 75 (previously presented) The method of claim 63 further comprising characterizing one or more properties of the binding modulator.

Claim 76 (previously presented) The method of claim 75 wherein the one or more properties of the binding modulator are physical, biological or biochemical properties.

Claim 77 (new) The method of claim 64 wherein the DmGPCR4 has a sequence with at least 95% sequence homology to SEQ ID NO:8.

Claim 78 (new) The method of claim 64 wherein the DmGPCR4 has a sequence with at least 99% sequence homology to SEQ ID NO:8.

Claim 79 (new) The method of claim 64 wherein the DmGPCR4 has the sequence of SEQ ID NO:8.

Claim 80 (new) The method of claim 64 wherein modulation of binding is determined by a gel-shift assay.

Claim 81 (new) The method of claim 64 wherein modulation of binding is determined by a protein binding assay.

Claim 82 (new) The method of claim 64 further comprising characterizing one or more properties of the binding modulator.